

OS70  
J404  
#5

OIPE

ENTERED

P.5

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/10/014,485A

DATE: 04/03/2002  
 TIME: 10:25:43

Input Set : A:\EP.txt  
 Output Set: N:\CRF3\04032002\J014485A.raw

3 <110> APPLICANT: Cell Signaling Technology, Inc.  
 4 COMB, Michael J.  
 5 ZHANG, Hui  
 6 TAN, Yi  
 8 <120> TITLE OF INVENTION: PRODUCTION OF MOTIF-SPECIFIC AND CONTEXT-INDEPENDENT  
 ANTIBODIES USING  
 9 PEPTIDE LIBRARIES AS ANTIGENS  
 11 <130> FILE REFERENCE: CST-138 CIP2  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/014,485A  
 C--> 13 <141> CURRENT FILING DATE: 2002-03-18  
 13 <150> PRIOR APPLICATION NUMBER: US 09/148,712  
 14 <151> PRIOR FILING DATE: 1998-09-04  
 16 <150> PRIOR APPLICATION NUMBER: US 09/535,364  
 17 <151> PRIOR FILING DATE: 2000-03-24  
 19 <160> NUMBER OF SEQ ID NOS: 145  
 21 <170> SOFTWARE: PatentIn version 3.1  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 14  
 25 <212> TYPE: PRT  
 26 <213> ORGANISM: Homo sapiens  
 28 <220> FEATURE:  
 29 <221> NAME/KEY: MOD\_RES  
 30 <222> LOCATION: (9)..(9)  
 31 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 9 is phosphorylated  
 34 <400> SEQUENCE: 1  
 36 Ile Lys Asp Gly Ala Thr Met Lys Thr Phe Cys Gly Thr Pro  
 37 1 5 10  
 40 <210> SEQ ID NO: 2  
 41 <211> LENGTH: 14  
 42 <212> TYPE: PRT  
 43 <213> ORGANISM: Homo sapiens  
 45 <220> FEATURE:  
 46 <221> NAME/KEY: MOD\_RES  
 47 <222> LOCATION: (5)..(5)  
 48 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 5 is phosphorylated  
 51 <400> SEQUENCE: 2  
 53 Asp Ala Ala Val Thr Pro Lys Lys Arg His Leu Ser Lys Cys  
 54 1 5 10  
 57 <210> SEQ ID NO: 3  
 58 <211> LENGTH: 15  
 59 <212> TYPE: PRT  
 60 <213> ORGANISM: Homo sapiens  
 62 <220> FEATURE:  
 63 <221> NAME/KEY: MOD\_RES

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/014,485A

DATE: 04/03/2002  
TIME: 10:25:43

Input Set : A:\EP.txt  
Output Set: N:\CRF3\04032002\J014485A.raw

64 <222> LOCATION: (8)..(8)  
65 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 8 is phosphorylated  
68 <400> SEQUENCE: 3  
70 Asp Thr Gln Ile Lys Arg Asn Thr Phe Val Gly Thr Pro Phe Cys  
71 1 5 10 15  
74 <210> SEQ ID NO: 4  
75 <211> LENGTH: 10  
76 <212> TYPE: PRT  
77 <213> ORGANISM: Homo sapiens  
79 <220> FEATURE:  
80 <221> NAME/KEY: MOD\_RES  
81 <222> LOCATION: (5)..(5)  
82 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 5 is phosphorylated  
85 <400> SEQUENCE: 4  
87 His Gln Val Val Thr Arg Trp Tyr Arg Cys  
88 1 5 10  
91 <210> SEQ ID NO: 5  
92 <211> LENGTH: 10  
93 <212> TYPE: PRT  
94 <213> ORGANISM: Homo sapiens  
96 <220> FEATURE:  
97 <221> NAME/KEY: MOD\_RES  
98 <222> LOCATION: (7)..(7)  
99 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 7 is phosphorylated  
102 <400> SEQUENCE: 5  
104 His Gln Val Leu Met Lys Thr Val Cys Gly  
105 1 5 10  
108 <210> SEQ ID NO: 6  
109 <211> LENGTH: 14  
110 <212> TYPE: PRT  
111 <213> ORGANISM: Homo sapiens  
113 <220> FEATURE:  
114 <221> NAME/KEY: MOD\_RES  
115 <222> LOCATION: (7)..(7)  
116 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 7 is phosphorylated  
119 <400> SEQUENCE: 6  
121 Ile Pro Ile Arg Val Tyr Thr His Glu Val Val Thr Leu Cys  
122 1 5 10  
125 <210> SEQ ID NO: 7  
126 <211> LENGTH: 15  
127 <212> TYPE: PRT  
128 <213> ORGANISM: Homo sapiens  
130 <220> FEATURE:  
131 <221> NAME/KEY: MOD\_RES  
132 <222> LOCATION: (8)..(8)  
133 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 8 is phosphorylated  
136 <400> SEQUENCE: 7  
138 Gly Val Pro Val Arg Thr Tyr Thr His Glu Val Val Thr Leu Cys  
139 1 5 10 15

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/014,485A

DATE: 04/03/2002  
TIME: 10:25:43

Input Set : A:\EP.txt  
Output Set: N:\CRF3\04032002\J014485A.raw

142 <210> SEQ ID NO: 8  
143 <211> LENGTH: 15  
144 <212> TYPE: PRT  
145 <213> ORGANISM: Homo sapiens  
147 <220> FEATURE:  
148 <221> NAME/KEY: MOD\_RES  
149 <222> LOCATION: (8)..(8)  
150 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 8 is phosphorylated  
153 <400> SEQUENCE: 8  
155 Asn Gln Val Phe Leu Gly Phe Thr Tyr Val Ala Pro Lys Lys Cys  
156 1 5 10 15  
159 <210> SEQ ID NO: 9  
160 <211> LENGTH: 14  
161 <212> TYPE: PRT  
162 <213> ORGANISM: Homo sapiens  
164 <220> FEATURE:  
165 <221> NAME/KEY: MOD\_RES  
166 <222> LOCATION: (12)..(12)  
167 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 12 is phosphorylated  
170 <400> SEQUENCE: 9  
172 Lys Glu His Met Met Asp Gly Val Thr Thr Arg Thr Phe Cys  
173 1 5 10  
176 <210> SEQ ID NO: 10  
177 <211> LENGTH: 15  
178 <212> TYPE: PRT  
179 <213> ORGANISM: Homo sapiens  
181 <220> FEATURE:  
182 <221> NAME/KEY: MOD\_RES  
183 <222> LOCATION: (7)..(7)  
184 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 7 is phosphorylated  
187 <220> FEATURE:  
188 <221> NAME/KEY: MOD\_RES  
189 <222> LOCATION: (9)..(9)  
190 <223> OTHER INFORMATION: PHOSPHORYLATION; tyrosine at position 9 is phosphorylated  
193 <400> SEQUENCE: 10  
195 Asp His Thr Gly Phe Leu Thr Glu Tyr Val Ala Thr Arg Trp Cys  
196 1 5 10 15  
199 <210> SEQ ID NO: 11  
200 <211> LENGTH: 15  
201 <212> TYPE: PRT  
202 <213> ORGANISM: Homo sapiens  
204 <220> FEATURE:  
205 <221> NAME/KEY: MOD\_RES  
206 <222> LOCATION: (5)..(5)  
207 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 5 is phosphorylated  
210 <220> FEATURE:  
211 <221> NAME/KEY: MOD\_RES  
212 <222> LOCATION: (9)..(9)  
213 <223> OTHER INFORMATION: PHOSPHORYLATION; serine at position 9 is phosphorylated

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/014,485A

DATE: 04/03/2002

TIME: 10:25:43

Input Set : A:\EP.txt

Output Set: N:\CRF3\04032002\J014485A.raw

216 <400> SEQUENCE: 11  
218 Glu Leu Leu Pro Thr Pro Pro Leu Ser Pro Ser Arg Arg Ser Cys  
219 1 5 10 15  
222 <210> SEQ ID NO: 12  
223 <211> LENGTH: 17  
224 <212> TYPE: PRT  
225 <213> ORGANISM: Homo sapiens  
227 <220> FEATURE:  
228 <221> NAME/KEY: MOD\_RES  
229 <222> LOCATION: (10)..(10)  
230 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 10 is phosphorylated  
233 <220> FEATURE:  
234 <221> NAME/KEY: MOD\_RES  
235 <222> LOCATION: (12)..(12)  
236 <223> OTHER INFORMATION: PHOSPHORYLATION; tyrosine at position 12 is phosphorylated  
239 <400> SEQUENCE: 12  
241 Leu Ala Arg His Thr Asp Asp Glu Met Thr Gly Tyr Val Ala Thr Arg  
242 1 5 10 15  
245 Cys  
249 <210> SEQ ID NO: 13  
250 <211> LENGTH: 15  
251 <212> TYPE: PRT  
252 <213> ORGANISM: Homo sapiens  
254 <220> FEATURE:  
255 <221> NAME/KEY: MOD\_RES  
256 <222> LOCATION: (5)..(5)  
257 <223> OTHER INFORMATION: PHOSPHORYLATION; threonine at position 5 is phosphorylated  
260 <220> FEATURE:  
261 <221> NAME/KEY: MOD\_RES  
262 <222> LOCATION: (7)..(7)  
263 <223> OTHER INFORMATION: PHOSPHORYLATION; tyrosine at position 7 is phosphorylated  
266 <400> SEQUENCE: 13  
268 Ser Phe Met Met Thr Pro Tyr Val Val Thr Arg Tyr Tyr Arg Cys  
269 1 5 10 15  
272 <210> SEQ ID NO: 14  
273 <211> LENGTH: 14  
274 <212> TYPE: PRT  
275 <213> ORGANISM: Homo sapiens  
277 <220> FEATURE:  
278 <221> NAME/KEY: MISC\_FEATURE  
279 <222> LOCATION: (8)..(8)  
280 <223> OTHER INFORMATION: Xaa at position 8 is phosphoserine or phosphothreonine  
283 <220> FEATURE:  
284 <221> NAME/KEY: MISC\_FEATURE  
285 <222> LOCATION: (11)..(11)  
286 <223> OTHER INFORMATION: Xaa at position 11 is arginine or lysine  
289 <220> FEATURE:  
290 <221> NAME/KEY: MISC\_FEATURE  
291 <222> LOCATION: (1)..(14)

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/014,485A

DATE: 04/03/2002

TIME: 10:25:43

Input Set : A:\EP.txt

Output Set: N:\CRF3\04032002\J014485A.raw

292 <223> OTHER INFORMATION: Xaa at positions 1-5, 7, 10, and 12-14 = any one of the 20  
amino acids except cysteine

296 <400> SEQUENCE: 14

W--> 298 Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa  
299 1 5 10

302 <210> SEQ ID NO: 15

303 <211> LENGTH: 14

304 <212> TYPE: PRT

305 <213> ORGANISM: Homo sapiens

307 <220> FEATURE:

308 <221> NAME/KEY: MOD\_RES

309 <222> LOCATION: (8)..(8)

310 <223> OTHER INFORMATION: PHOSPHORYLATION; serine at position 8 is phosphorylated

313 <220> FEATURE:

314 <221> NAME/KEY: MISC\_FEATURE

315 <222> LOCATION: (1)..(14)

316 <223> OTHER INFORMATION: Xaa at positions 1-4, 7, 9, and 11-14 = any one of the 20  
amino acids except cysteine

320 <400> SEQUENCE: 15

W--> 322 Xaa Xaa Xaa Xaa Arg Ser Xaa Ser Xaa Pro Xaa Xaa Xaa Xaa  
323 1 5 10

326 <210> SEQ ID NO: 16

327 <211> LENGTH: 14

328 <212> TYPE: PRT

329 <213> ORGANISM: Homo sapiens

331 <220> FEATURE:

332 <221> NAME/KEY: MISC\_FEATURE

333 <222> LOCATION: (1)..(14)

334 <223> OTHER INFORMATION: Xaa at positions 1-4, 7, 9, and 11-14 = any one of the 20  
amino acids except cysteine

338 <400> SEQUENCE: 16

W--> 340 Xaa Xaa Xaa Xaa Arg Ser Xaa Ser Xaa Pro Xaa Xaa Xaa Xaa  
341 1 5 10

344 <210> SEQ ID NO: 17

345 <211> LENGTH: 14

346 <212> TYPE: PRT

347 <213> ORGANISM: Homo sapiens

349 <220> FEATURE:

350 <221> NAME/KEY: MISC\_FEATURE

351 <222> LOCATION: (8)..(8)

352 <223> OTHER INFORMATION: Xaa at position 8 is phosphoserine or phosphothreonine

355 <220> FEATURE:

356 <221> NAME/KEY: MISC\_FEATURE

357 <222> LOCATION: (1)..(14)

358 <223> OTHER INFORMATION: Xaa at positions 1-5, 7, and 10-14 = any one of the 20 amino  
acid acids except cysteine

362 <400> SEQUENCE: 17

W--> 364 Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa  
365 1 5 10

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY DATE: 04/03/2002  
PATENT APPLICATION: US/10/014,485A TIME: 10:25:45

Input Set : A:\EP.txt  
Output Set: N:\CRF3\04032002\J014485A.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No  
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14  
L:322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15  
L:340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16  
L:364 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17  
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20  
L:478 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:508 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:538 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:568 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24  
L:598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
L:646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:670 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29  
L:775 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33  
L:793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34  
L:901 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41  
L:931 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42  
L:983 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45  
L:1007 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46  
L:1037 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47  
L:1750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:88  
L:1775 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89  
L:1799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90  
L:1823 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91  
L:1847 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:92  
L:1871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93  
L:1894 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94  
L:1917 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95  
L:1959 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96  
L:1963 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96  
L:1986 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97  
L:2012 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:98  
L:2035 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99  
L:2061 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:100  
L:2094 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101  
L:2117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102  
L:2142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:2165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104  
L:2205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:105  
L:2228 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106  
L:2253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:107  
L:2276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108  
L:2309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109

VERIFICATION SUMMARY  
PATENT APPLICATION: US/10/014,485A

DATE: 04/03/2002  
TIME: 10:25:45

Input Set : A:\EP.txt  
Output Set: N:\CRF3\04032002\J014485A.raw

L:2338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110  
L:2377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111  
L:2381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111  
L:2404 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:112